

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
9 February 2006 (09.02.2006)

PCT

(10) International Publication Number  
**WO 2006/014041 A1**

(51) International Patent Classification<sup>7</sup>: **G02F 1/1335**  
(21) International Application Number:  
PCT/KR2004/003013

(22) International Filing Date:  
19 November 2004 (19.11.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:  
10-2004-0060853 2 August 2004 (02.08.2004) KR

(71) Applicant (for all designated States except US): **SAM-SUNG FINE CHEMICALS CO., LTD [KR/KR]**; 190 Yeochun-Dong, Nam-Gu, Ulsan 680-090 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KIM, Seong-Tae [KR/KR]**; 107-810 Hyundai Apartment, shinrim2-Dong, Gwanak-Gu, Seoul 151-761 (KR). **KIM, Keon-II [KR/KR]**; 106-1408 Expo Apartment, Jeonmin-Dong, Yuseong-Gu, Daejeon 305-761 (KR).

(74) Agents: **KWON, Oh-Sig et al.**; 401, Joeeun Leaderstel, 921 Dunsan-Dong, Seo-Gu, Daejeon 302-828 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

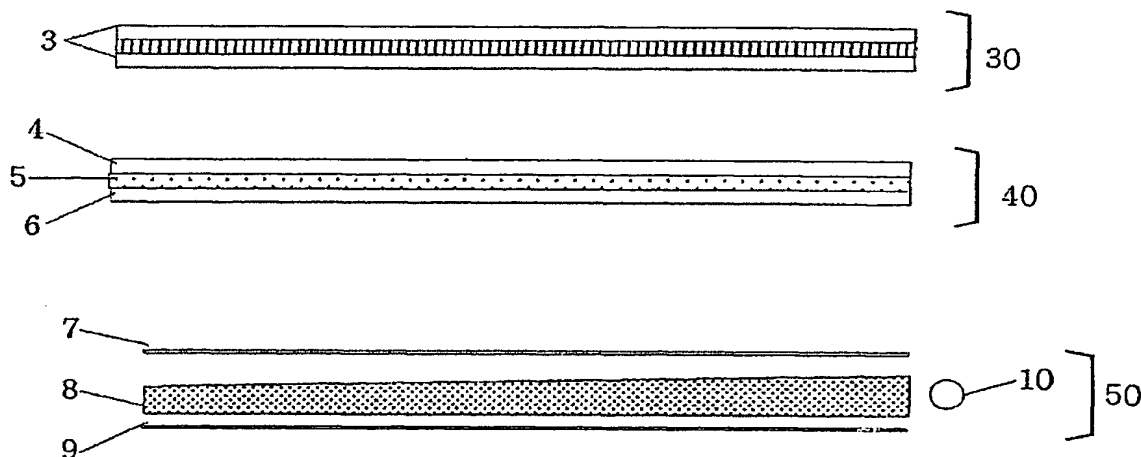
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **BROADBAND REFLECTIVE POLARIZER FOR LIQUID CRYSTAL DISPLAY USING OVERCOATING METHOD**



(57) Abstract: The present invention relates to a method of manufacturing a reflective polarizing film for a liquid crystal display device in which cholesteric liquid crystal layers having different selective light-reflecting wavelengths are laminated in the laminated coating method, thus a forming liquid crystal film that covers a visible light region and  $1/4\lambda$  retardation film are attached to the liquid crystal film. In this case, two or more cholesteric liquid crystal layers having different selective light-reflecting wavelengths are laminated in order from the shorter wavelength to the longer wavelength in the laminated coating method. Further, during the lamination, orientation layers are laminated between the liquid crystal layers to maximize the selective reflection characteristic of the cholesteric liquid crystal.